

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

4684-024

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

**10/536863**

INTERNATIONAL APPLICATION NO.

PCT/KR2003/002606

INTERNATIONAL FILING DATE

November 28, 2003

PRIORITY DATE CLAIMED

November 28, 2002

## TITLE OF INVENTION

**MICROPUMP AND CELL CULTURE UNIT UTILIZING GAS GENERATION AND PRODUCTION METHOD THEREOF**

## APPLICANT(S) FOR DO/EO/US

**Seung Seob LEE; Yo Han CHOI; Sanguk SON**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1.  This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2.  This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3.  This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) as indicated below.
4.  The US has been elected (Article 31).
5.  A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is transmitted hereto (required only if not communicated by the International Bureau).
  - b.  has been communicated by the International Bureau.
  - c.  is not required, as the application was filed in the United States Receiving Office (RO/US)
6.  An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is attached hereto.
  - b.  has been previously submitted under 35 U.S.C. 154(d)(4).
7.  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a.  are attached hereto (required only if not communicated by the International Bureau).
  - b.  have been communicated by the International Bureau.
  - c.  have not been made; however, the time limit for making such amendment has NOT expired.
  - d.  have not been made and will not be made.
8.  An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9.  An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10.  An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

## Items 11 to 20 below concern document(s) or information included:

11.  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13.  A preliminary amendment.
14.  An Application Data Sheet under CFR 1.76
15.  A substitute specification.
16.  A power of attorney and/or change of address letter.
17.  A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821–1.825
18.  A second copy of the published international application under 35 U.S.C. 154(d)(4)
19.  A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4)
- Other items or information: Front Page of WO 2004/048254 A1

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<p><input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total Sheets</th> <th>Extra sheets</th> <th>Number of each additional 50 or fraction thereof (round up to a whole number)</th> <th>RATE</th> </tr> </thead> <tbody> <tr> <td>- 100 =</td> <td>/50 =</td> <td></td> <td style="text-align: right;">× \$250.00</td> </tr> </tbody> </table>			Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE	- 100 =	/50 =		× \$250.00																								
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<p>a. <input type="checkbox"/> A check in the amount of \$ _____.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. <u>07-1337</u> in the amount of \$ ____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>07-1337</u>. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>																																		
<p><small>NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. Kindly use the attorneys' address associated with the following Customer Number for future correspondence.</small></p>																																		
<p>SEND ALL CORRESPONDENCE TO:</p> <p>LOWE HAUPTMAN &amp; BERNER, LLP 1700 Diagonal Road, Suite 300 Alexandria, VA 22314 (703) 684-1111</p> <p>Customer No. 22429 PATENT TRADEMARK OFFICE</p> <p> SIGNATURE <b>Benjamin J. Hauptman</b></p> <p>NAME <b>29,310</b></p> <p>REGISTRATION NUMBER</p>																																		